

of public healthcare in Ecuador to predict the financial consequences of introducing axitinib as a second line treatment in Ecuador. **METHODS:** Using a budget impact analysis model, we estimated the incremental impact in the Ministry of public healthcare budget in Ecuador with the introduction of axitinib as treatment for mRCC in whom have failed the first line treatment. The comparative used drugs were sorafenib, everolimus, sunitinib, pazopanib and bevacizumab + IFNa. The epidemiological data was taken from GLOBOCAN 2012. The costs information 2014 was obtained from public sources and the model was built in Microsoft Excel 2007. The economic analysis is based in the incidence of RCC: metastatic, non-metastatic and the percentage of the patients with progression. The model considers two scenarios: 1) The current market of treatment without Axitinib, 2) The current market adding Axitinib. **RESULTS:** Based on the incidence of RCC and the Ecuador population, we calculated 269 incident cases of RCC, 211 with metastatic disease and 58 who will progress to metastatic disease, 97 patients received a first line treatment of whom 40.91% (40 patients) needed a 2ndline treatment. Along a 3 year follow-up in the scenario were axitinib was added, the estimated cost was \$5,810,416.84 USD, with an incremental change of \$26,098.99 USD and an incremental cost for the population with access to the national healthcare system of \$0.00010 USD p/month. **CONCLUSIONS:** The addition of axitinib as a second line treatment for mRCC had a minimal impact on the budget designated to the Ministry of public healthcare in Ecuador, and since it has an A1 recommendation level, it will represent an improvement in the mRCC treatment options.

PCN38 BUDGET IMPACT ANALYSIS OF ENZALUTAMIDE FOR TREATMENT OF METASTATIC CASTRATION-RESISTANT PROSTATE CANCER FROM A U.S. PAYER PERSPECTIVE

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OBJECTIVES: Prostate cancer is the second leading cause of cancer death in American men and has a high economic burden. Enzalutamide received FDA approval for an expanded indication based on significant improvement in overall survival and radiographic progression-free survival in chemotherapy-naïve metastatic castration-resistant prostate cancer (mCRPC) patients. Our objective was to estimate the 1-year budget impact (BI) of adopting enzalutamide's expanded indication. **METHODS:** Epidemiologic data, including SEER incidence rates, were used to estimate total number of chemotherapy-naïve mCRPC patients in a hypothetical 1-million member U.S. health plan. Treatment options included abiraterone acetate, sipuleucel-T, radium-223 dichloride, and docetaxel. Dosing, administration, mean duration of therapy and adverse event (AE) rates were based on package inserts and pivotal studies. Drug costs (including pre- and concomitant medications) were obtained from RedBook and CMS ASP pricing files, administration and monitoring from CMS Physician Fee Schedule, and AEs from AHRQ H-CUP and published literature. Drug utilization was estimated for each comparator before and after adoption of enzalutamide. Incremental aggregate budget, per patient per year (PPPY), per patient per month (PPPM), and per member per month (PMPM) impact were calculated. One-way sensitivity analyses were performed. **RESULTS:** In an estimated population of 115 mCRPC patients, adopting the new enzalutamide indication had modest annual plan impact (\$510,641 incremental aggregate BI, \$4,426 PPPY, \$368.83 PPPM and \$0.04 PMPM). Enzalutamide acquisition cost was partially offset by moderate AEs and no additional monitoring costs. Results were most sensitive to enzalutamide drug cost, size of chemotherapy-naïve mCRPC patient population and enzalutamide adoption rate. **CONCLUSIONS:** Results indicate a modest 1-year BI to adopt enzalutamide for chemotherapy-naïve mCRPC patients, partly due to the cost offset of moderate incidence of AEs and lack of additional required monitoring. Further analysis to understand cost per clinical outcome may complement the BI model to understand relative costs and benefits.

PCN39 MODELING ANNUAL PROJECTED REVENUE IMPACT OF THERAPY INTRODUCTION FOR PATIENTS WITH BRAF V600 METASTATIC MELANOMA FROM A HOSPITAL PERSPECTIVE

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OBJECTIVES: Economic modeling is an accepted tool for making formulary decisions by payers in the US. Hospital and institutional healthcare providers have expressed increased interest in using economic modeling in their decision making processes, particularly regarding potential reimbursement based on hospital-specific pricing. This study presents hospital perspective results from a revenue impact (RI) calculator component of an economic model. **METHODS:** An economic model was developed that investigated the RI (pharmaceutical acquisition costs minus projected reimbursement) of introducing National Comprehensive Cancer Network Category 1 recommended therapies for BRAF V600 mutated metastatic melanoma to a hospital formulary. Therapies investigated in the analysis included: dabrafenib+trametinib combination therapy, vemurafenib monotherapy, dabrafenib monotherapy, and trametinib monotherapy. The model calculated the annual pharmaceutical acquisition cost of each therapy based on recommended dosing, progression-free survival as a marker for duration of treatment, and drug pricing. Pricing data was retrieved from the Truven Health Analytics RED BOOK™ database. Acquisition costs in the model could be set to 340B, wholesale acquisition cost (WAC), or average wholesale price (AWP) values. The model used a default 30% discount compared to WAC to approximate 340B pricing. The projected reimbursement in the model uses WAC plus a modifiable 4.3% (based on the Medicare permitted reimbursement premium) for both Medicare and commercial payers. The perspective payer mix and respective reimbursement percentages can be modified by the model user. WAC was used in place of average sales price (ASP) due to the unavailability of hospital-specific

ASP per therapy. **RESULTS:** Annual net reimbursement revenues per patient based on 340B acquisition costs were projected to be \$53,270 for dabrafenib+trametinib combination, \$27,043 for vemurafenib, \$22,634 for dabrafenib, and \$19,029 for trametinib. **CONCLUSIONS:** The addition of user-modifiable projected reimbursement revenue calculation is a valuable tool that expands the contribution of economic modeling to hospital formulary decision-making.

PCN40 UNIVERSAL VERSUS TARGETED SCREENING OF COLON CANCERS FOR LYNCH SYNDROME: COST AND DIAGNOSTIC EFFECTIVENESS ANALYSES BASED ON CLINICAL EXPERIENCE

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OBJECTIVES: Strategies for screening incident colorectal cancers (CRC) for possible Lynch syndrome (LS) are evolving rapidly. Our objective is to compare the diagnostic results and costs from two strategies for LS screening: Targeted Screening (TS) and Universal Screening (US) of tumors for mismatch repair (MMR) abnormalities. **METHODS:** For 18-months in 2010-2011, we employed TS - individuals under 60 years old and those meeting Bethesda criteria for LS. In 2012, we began US of all CRC. Immuno-histochemical (IHC) staining for the four MMR proteins was done in all cases. Microsatellite instability, BRAF mutation, MLH1 promoter methylation testing, and/or genetic testing of germ line DNA were done in selected cases. We modeled the diagnostic costs of several strategies for detecting LS, and the downstream costs of prevention CRC through colonoscopy screening, using a system dynamics model, built in the "Anylogic" program. **RESULTS:** In 2010-2011, 51 of 175 (29%) incident CRCs were screened by IHC using TS strategy; 15(29%) showed abnormal loss of >1 MMR protein. Germ line MMR gene mutations were found in 4 cases and were suspected but not demonstrated in 11 additional cases. In 2012-2013, 194 CRCs were screened by IHC using US; 13(6.7%) of CRCs had abnormal staining suspicious for LS. MMR mutations were found in only 2/9 cases abnormal for IHC. Cost to identify the LS probands was -\$8,339/LS case diagnosed for targeted screening (four mutation carriers/18 months) and -\$32,708/LS case diagnosed for universal screening (two mutation carriers/24 months). **CONCLUSIONS:** Real-world results were more complicated than anticipated. Results from US with IHC were often atypical, not diagnostic of LS. Economic analysis using our costs suggests that TS is less costly than US, but it will miss some cases of mildly penetrant LS. US identifies changes that are currently of unknown significance but that have potential to contribute to future research into the mechanisms of CRC tumorigenesis.

PCN41 HOSPITAL CANCER BURDEN IN ARGENTINA: COSTS, MORTALITY AND READMISSIONS

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OBJECTIVES: Little is known about cancer (CA) in hospitalization, cost and outcomes in transitional countries. We studied this in a multicentric hospital study in Argentina. **METHODS:** Adult CA, hospital direct costs, re-admissions (ReH <30 days) and deaths in 1 yr output of 3 academic hospitals. Cost and results, harmonized according HCUPS (USA) terminology groupers, of primary (1Dx), and secondary diagnosis (2Dx) for each CCS code (Clinical Classification Software-CCS single level-SL, 2009). Total costs (CT\$), mean costs (SD) and median per discharge cost (\$, 25P-75P-percentiles), in ItL\$ PPP, (UN Data: 1Arg\$ = 1.608 PPP, 2008). CA defined as [#CCS [descriptive term]], including from CCS #11 [head and neck CA] to #44 [Neoplasms of unspecified nature or uncertain behavior] and CCS 45 [Maintenance chemotherapy; radiotherapy--QT;RT]. Readmissions (ReH) <30 days and hospital deaths were obtained. **RESULTS:** Among 45 466 ≥ 19 yrs.old, CA was found in 6 282, 13.81%(95%CI 13,50-14,14) Dx1; CCS 11-45 (F= 49,33%) (individual CA data not shown) while QT;RT (# 45) = 2 520 disch., 5,54% (4,75-5,15). Among CCS 45 [QT;RT] en 1Dx, CCS #11-44 in any 2Dx up to 5 2Dx code adds 3,046 disch; adding CA codes 1Dx +2Dx = 9.298 discharges (20,45%, 20,08-20,82). Among CCS en 1Dx, CT \$ = I \$ PPP 64 088 727; mean: I\$ 17,035; SD: I\$ 4,276; median: I\$ 8,897 (25P 4,042; 75 P 19,601). ReH <30 d = 485 (1,06 %, 0,97-1,16); while QT-RT (#45) ReH< 30 = 1,754 (3,86%, 3,68-4,04). Case fatality rate for CCS 11-44 was 3,27%, (2,86-3,74), and for CCS 45 was 0,17%, (0,06-0,45). **CONCLUSIONS:** CA burden among hospital discharges, and its costs, case fatality, and readmissions were obtained for the first time in Argentina. QT-RT as a first Dx is close to half of discharges, and showing CA en 2Dx behaves differently in ReH and mortality. An iceberg phenomenon of CA in 2Dx emerges.

PCN42 TREATMENT PATTERNS AND COSTS ASSOCIATED WITH SUNITINIB AND PAZOPANIB TREATMENT FOR RENAL CELL CARCINOMA: A COMMERCIAL HEALTH CLAIMS ANALYSIS

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OBJECTIVES: Real-world data may inform decisions regarding treatment for renal cell carcinoma (RCC). We compared treatment persistence and healthcare costs for sunitinib and pazopanib, considering dosing cycle differences' effect on days supply. **METHODS:** This retrospective cohort study used the Truven Marketscan® database. Inclusion criteria were RCC diagnoses, age ≥ 20 years, ≥1 (index) prescription for sunitinib or pazopanib 10/1/2009 – 9/30/2013, and continuous plan enrollment ≥6 months before to 12 months after index. We compared demographic and clinical characteristics and treatment patterns, using Chi-square, Student t-test, and Wilcoxon signed-rank test ($\alpha=0.05$). Costs were compared using generalized linear modeling to adjust for demographic, clinical, and medication variables. Sensitivity analysis assessed effects of imputing days supply for sunitinib's 42-day dosing for prescriptions with 28 or 30 days supply. **RESULTS:** Among 466 patients (77% receiving sunitinib), the cohorts were not significantly (NS) different in demographics or Charlson Comorbidity Index. More sunitinib patients (46 vs. 6 pazopanib patients; $p=0.038$) had